

a control gate.

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Claims 35 and 36, please cancel.

# REMARKS

Examiner Jamie Lynn Brophy is thanked for examining the present invention thoroughly.

Reconsideration of the rejection of claims 34-36 under 35 USC 103(a) as being unpatentable over Ning, et al., (5,231,299) in view of Hunter, et al., (4,631,803), is respectfully requested in view of the amended claims and for the reasons hereinafter given.

Applicants are in agreement with the examiner that Ning, et al., do not teach that there are two conformal layers lining the inside walls of the trench. Hunter, et al., on the other hand show a structure with four layers that line the inside walls of the trench. Furthermore, the layers shown in the Hunter reference are very thick. In Figure 3 of the reference, layer (38) has a thickness between about 200 to 450 Å (column 3,

lines 40-42), layer (40) has a thickness between about 300 to 600 Å (column 3, lines 47-48), layer (46) has a thickness of 1000 Å (column 4, line 22), and layer (48) has a thickness of 300 Å (column 4, line 39). In addition to the fact that the conformal layers of the reference are four in number in contrast with the two layers of the instant invention, the total thickness of the conformal layers of the reference is between about 1800 to 2350 Å. This should be compared with the very thin layers of the instant invention, namely, layers (215) and (250) of Figure 4G, having thicknesses between about 200 to 550 Å, and 100 to 350 Å, respectively, or with a total thickness between about 300 to 900 Å. The thick linings give rise to undesirable delamination of the layers. Furthermore, the applicants go to great lengths to emphasize thin layers of oxide and nitride (page 17, lines 8-10) to prevent the occurrence of the "smiling" effect (page 17, lines 18-20). Thinner layers also contribute to reduced sizes of devices. Claim 34 has been amended to cite the thin layers of the instant invention, and claims 35 and 36 cancelled, accordingly.

It is respectfully suggested that the combination of these various references cannot be combined without reference to applicant's own invention. None of the applied references address the problem of "smiling" effect on coupling between the

floating gate and the source of a split-gate flash. Applicants have claimed their structure in detail. The structures of Figs. 3A-3E and 4A-4G (Claims 34-36) are believed to be novel and patentable over these various references, because there is not sufficient basis for concluding that the combination of claimed elements would have been obvious to one skilled in the art. That is to say, there must be something in the prior art or line of reasoning to suggest that the combination of these various references is desirable. We believe that there is no such basis for the combination. We therefore request respectfully that examiner Jamie Lynn Brophy reconsider this rejection, and allow claim 34, as amended, in view of these arguments and the amendments to the claims.

Allowance of all claims, as amended, is requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attachment is captioned **"Version with Marking to Show Changes Made."**

It is requested that should the Examiner not find that the Claims Allowable that are now presented, that he call the

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undersigned Attorney at 845/452-5863 to overcome any problems preventing allowance.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

IN THE CLAIMS

Claim 34 has been amended as follows:

34. A split-gate flash memory having a non-smiling trench isolation comprising:

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a floating gate;

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a trench;

two conformal layers lining the inside walls of said  
9 trench, wherein a first conformal lining comprises oxide  
having a thickness between about 200 to 550 Å, and a second  
conformal lining comprises nitride having a thickness  
12 between about 100 to 300 Å; and

a control gate.

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Claims 35 and 36 have been cancelled.